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THE GENESEE FARMER.

SATURDAY, FEBRUARY 1, 1834.

Cattle Husbandry.

[*Continued from page* 27.]

THE SHORT HORNS,

Known as Durham, Teeswater, Holderness, Improved Short Horns, &c.

The cattle of York and Durham were long celebrated, principally for their reputation as extraordinary milkers. This property they are supposed to have acquired by a cross with a fine milk breed from Holstein, at a remote period. These were however different from what are now termed "*Improved Short Horns.*"

"They were generally of large size, thin skinned, sleek haired, bad handlers, rather delicate in constitution, coarse in the offal, and strikingly defective in the substance of girth in the fore quarters. As milkers they were most excellent, but when put to fatten, as the foregoing description will indicate, were found slow feeders, producing an inferior quality of meat, not marbled or mixed as to fat and lean, and, in some cases, the latter was found of a dark particular hue. Such, also, are the unimproved Short Horns of the present day, and the distinction cannot be too frequently asserted, because they are, in many cases, considered as specimens of the improved breed, and have actually been resorted to in trials as to the comparative aptitude of animals to fatten,—trials which it is evident they could not successfully sustain.

"A period of more than eighty years has now elapsed since the Short Horns, on the banks of the river Tees, hence called the Teeswater breed, has assumed a very different character to that contained in the foregoing description. In color they resemble the improved Short Horns, being occasionally red, red and white, and roan, though the last named color was not so prevalent as now. They possessed a fine mellow skin and flesh, good hair, and light offal, particularly wide carcasses, and fore quarters of extraordinary depth and capacity."

To show *how*, and by *whom* the *improvement* was made in the Short Horn breed, and its extent, we extract, in full, the account before us:

"The remarkable difference which existed between the Teeswater and the old unimproved Short Horns may, with propriety, be ascribed to a spirit of improvement which had some time manifested itself among the breeders on the banks of the Tees, whose laudable efforts were well seconded by the very superior land in the vicinity of that river. No reasonable doubts can be entertained that they proceeded on a judicious system of crossing with other breeds, because it was utterly impossible to raise such a stock as the Teeswater from pure Short Horned blood. One cross to which they referred was, in all probability, the white wild breed; and if this conjecture be well founded, it will be apparent whence the Short Horns derived a color so prevalent among them.

"It is also asserted, that about the period in question, Sir William St. Quintin, of Scampston, imported bulls and cows from Holland, which were crossed with the stock of the country. It would tend to little advantage to proceed with conjectures, as to what other breeds were resorted to, if any; this much is certain, that great improvement was soon manifested, and a valuable variety established, as the two following instances will prove.

"Mr. Milbank, of Barmingham, one of the leading improvers, bred and slaughtered an ox, which, at five years old, weighed four quarters, one hundred and fifty stones, of fourteen pounds to the stone, producing sixteen stones of tallow; and a cow bred from his stock, slaughtered by Mr. Sharter, of Chilton, at twelve years old, weighed upwards of one hundred and ten stones.

"From Mr. Milbank's time, the Teeswater cattle continued to sustain their excellence and celebrity in various hands, until Mr. Charles Colling adopted them, when he manifested a superiority of skill as a breeder, which, in a very brief period, secured him an ample fortune.

"Whatever had been the merit of the Teeswater cattle, it is certain Mr. Charles Colling greatly improved them; and though it has been asserted that his success was the result of chance, arising from the possession of an animal, with the merits of which, it is supposed, he was at one period unacquainted, the writer of this article is of opinion that Mr. Colling's success resulted from a deliberate and well considered plan. He found the Teeswater, like all other extravagantly large cattle, frequently of loose make and disproportion. He was sensible, also, of the difficulty of breeding, with any thing like certainty, *large good* animals; and though he had declined on all occasions to throw any light on his views and proceedings, the writer thinks he can detect, in the very outset, and through the progress of his practice, a resolution to reduce the size of this breed, and at the same time, and by that means, to improve its form. This he is supposed to have effected in the first instance through the medium of a bull called "*Hubback,*" an animal respecting which there has been much controversy, principally touching the purity of his blood, a question now of little importance, because it is admitted on all hands that Mr. Colling adopted another cross, which prevails in a majority of superior Short Horns of the present day. It may notwitstanding be matter of interest to state a few particulars respecting this bull.

"Without entering on an inquiry by what circumstances Hubback's title to be considered of pure blood is supported or weakened, it may suffice to say, that it appears probable he possessed on one side the imported blood. The possessor of his dam was a person in indigent circumstances, and grazed his cow in the highways. When afterwards she was removed to good land, she became so fat that she did not again breed, and her son, having the same feeding property in a high degree, was useful as a bull during a very short period. The quality of his flesh, hide and hair, are supposed to have been seldom equaled; and as he was smaller than the Teeswater cattle, he was eminently calculated to forward Mr. Colling's views.

"It has been remarked that we have no superior horse on the turf, which does not boast the blood of the Godolphin Arabian; so it may be asserted that we have no superior Short Horns which do not claim descent nearly, or remotely, from Hubback.

"After the use of this bull Mr. Charles Colling proceeded with singular success to produce, from time to time, superior animals; and the number of bulls he disposed of by letting was highly encouraging. But the circumstance which brought the improved Short Horns into most extensive notice was the production of the "Durham ox," an animal which speaks volumes in favor of a single cross from this blood; for the ox was the produce of a common cow, which had been put to *Favorite*. At five years old the Durham ox was sold to Mr. Bulmer, for public exhibition, at the price of 140*l*. This was in February, 1801. He was at that time computed to weigh 168 stones, of 14 lbs. (the quarters,) his live weight being 216 stones; and this extraordinary weight did not arise from his superior size, but from the excessive ripeness of the points. Mr. Bulmer having obtained a carriage for his conveyance, traveled with him five weeks, and then sold him and the carriage, at Rotherham, to Mr. John Day, for 250*l*.

"On the same day Mr. Day could have sold him for..... £525
"On the 13th of June for.....1000
"On the 8th of July for.....2000

"Mr. Day traveled with him nearly six years, through the principal parts of England and Scotland, till on the 19th Feb. 1807, the ox dislocated his hip-bone, and continued in that state until the 15th April, when he was obliged to be slaughtered, and, notwithstanding he must have lost considerably in weight during his eight weeks of illness, his carcase weighed—

	Stones.	lbs.
Four quarters,.....	165	12
Tallow,.....	11	2
Hide,.....	10	2

To effect further inprovement, Mr. Colling resolved to resort to the Galloway:

"He was much favored by circumstances in promoting his object, which was to take one cross, and then breed back to the Short Horn,—the only course, by the way, in which crossing can be successfully adopted. To breed from the produce of a cross *directly among themselves* will lead to the results which have induced many persons, without due consideration, to believe conclusive against crossing; but to take one cross, and then return and adhere to one breed, will, in the course of a few generations, be found to stamp a variety with sufficient certainty.

"Mr. Colling's Short Horned bull *Bolingbroke* was put to a red polled Galloway cow, and the produce, being a bull calf, was, in due time, put to *Johanna*, a pure Short Horn,—she also producing a bull calf. This grandson of Bolingbroke was the sire of the cow *Lady*, by another pure Short Horned dam, and from Lady has sprung the highly valuable family of improved Short Horns, termed, in reproach, *Alloy*.

"It will probably be admitted that the prejudice against this cross was at the highest at the time of Mr. Charles Colling's sale. The blood had then been little, if at all, introduced to other stocks, and it was manifestly the interest, whatever might be the inclination, of the many breeders who had it not, to assume high ground for the pure blood, and to depreciate the alloy. Under these untoward circumstances for the alloy, what said public opinion, unequivocally certified by the stroke of the auctioneer's hammer? *Lady*, before mentioned, at fourteen years old, sold for two hundred and six guineas. *Countess*, her daughter, nine years old, for four hundred guineas. *Laura*, another daughter, four years old, for two hundred and ten guineas. *Major* and *George*, two of her sons, the former three years old, the latter a calf, for two hundred guineas, and one hundred and thirty; beside a number of others, more remotely descended from *Lady*, which all sold at high prices—in fact, in a sale of forty-eight lots, realising £7115 17*s*. *Lady* and her descendants sold for a larger sum than any other family obtained."

As the prices at which Mr. Colling's stock sold affords the best criterion of its value, and as the names of the animals may be considered as constituting a sort of *Herd Book*, by which the pedigree of individuals may be appreciated, we give the catalogue of the sale entire, omitting only the names of the purchasers. The sale took place Oct. 11, 1810:

COWS.

Names.	Out of.	Got by.	Cow's Age.	Sold for Bulled by.	Gu.
Cherry	Old Cherry	Favorite	11	Comet	83
Kate		Comet	4	Mayduke	35
Peeress	Cherry	Favorite	5	Comet	170
Countess	Lady	Cupid	9	do.	400
Celina	Countess	Favorite	5	Petrarch	200
Johanna	Johanna	do.	4	do.	130
Lady	Old Phoenix	A grandson of Lord Bolingbroke	14	Comet	206
Catheline	A daughter of the dam of Phoenix	Washington	8	Comet	150
Laura	Lady	Favorite	4	do.	210
Lily	Daisy	Comet	3	Mayduke	410
Daisy	Old Daisy	A grandson of Favorite	6	Comet	140
Cora	Countess	Favorite	4	Petrarch	70
Beauty	Miss Washington	Marsh	4	Comet	120
Red Rose	Eliza	Comet	4	Mayduke	45
Flora		do.	3	do.	70
Miss Peggy		A son of Favorite	3	Comet	60
Magdalene	A heifer by Washington	Comet	3	Comet	170

BULLS.

Names.	Out of.	Got by.	Age.	Gu.
Comet	Phoenix	Favorite	6	1000
Yarborough		Favorite	9	55
Major	Lady	Comet	3	200
Mayduke	Cherry	do.	3	145
Petrarch	Old Venus	do.	2	365
Northumberland		Favorite	2	80
Alfred	Venus	Comet	1	110
Duke	Dutchess	do.	1	105
Alexander	Cora	do.	1	63
Ossian	Magdalene	Favorite	1	76
Harold	Red Rose	Windson	1	50

BULL CALVES—*Under one year old.*

Names.	Out of.	Got by.	Gu.
Ketton	Cherry	Comet	50
Young Favorite	Countess	do.	140
Geerse	Lady	do.	130
Sir Dimple	Daisy	do.	90
Narcissus	Flora	do.	15
Albion	Beauty	do.	60
Cecil	Peeress	do.	170

HEIFERS.

Names.	Out of.	Got by.	Age.	Gu
Phoebe	Dam by Favorite	Comet	3	105
Young Dutchess	do.	do.	2	183
Young Laura	Laura	do.	2	101
Young Countess	Countess	do.	2	206
Lucy	Dam by Washington	do.	2	132
Charlotte	Catheline	do.	1	136
Johanna	Johanna	do.	1	35

HEIFER CALVES—*Under one year old.*

Names.	Out of.	Got by.	Gu.
Lucilla	Laura	Comet	106
Calista	Cora	do.	50
White Rose	Lily	Yarbro'	75
Ruby	Red Rose	do.	50
Cowslip		Comet	25

Thus it would seem that the *true* improved Short Horns are a cross of the large Teeswater with the smaller Galloway breeds made by Mr. C. Colling, and the pedigree of these animals is traced back by the breeders to some one of the animals named in the preceding list. Robert, as well as Charles Colling, was an early breeder of this improved stock. His stock was sold in 1818, when the following great prices was obtained for some of his cattle, a sufficient proof of the estimation in which they were held:

One 2 year old Cow, sold for 331 guineas.
One 4 year old Cow,...do..300 do.
One 5 year old Cow,...do..370 do.
One 1 year old Bull calf, do..270 do.
One 4 year old Bull,....do..621 do.

It appears by the catalogue, with printed prices affixed, that

34 Cows....sold for....4141 guineas.
17 Heifers....do.....1287 do.
6 Bulls.....do.....1343 do.
4 Bull Calves.do.....713 do.
61 Head of cattle do.....7484 do.

The great improvement effected by the Messrs. Colling, was the symmetry of form, and the disposition to feed rapidly. Every perfection in cattle, whether it be one of form, of quality of flesh, or disposition to fatten, or to yield milk—can be retained only by the breeder's devoted attention to his particular object; and every advance towards one point has been tantamount to receding from another; because the same proceeding which tends to enhance a particular quality, will also enhance a defect, provided such defect was of previous existence. It is admitted that the improved breeds do not give such a *quantity* of milk as the unimproved, or Holderness; yet it is maintained that the milk of the former is of better quality, and yields as much *butter*. Col. Powell, of Philadelphia, obtained from an improved short horn, at the rate of 20 lbs. of butter per week, though undoubtedly under high keeping. It is contended that the cows unite the two qualities of taking flesh and giving milk to a degree of perfection, *but not at the same time*;—they succeed to each other, and at the period when it suits the dairy woman they should. It is well to remark, that the counties of Durham and York have been the principal theatre of short horn excellence, whether of old or new breeds. Hence the term of Yorkshire or Durham cattle is often applied to both.

CRITERION OF A GOOD YORKSHIRE COW.

"A milch cow, good for the pail as long as she is wanted, and then quickly got into marketable condition, should have a long and rather small head; a large headed cow will seldom fatten or yield much milk. The eye should be bright, yet with a peculiar placidness and quietness of expression; the chaps thin, and the horns small. The neck should not be so thin as that which common opinion has given to the milch cow. It may be thin towards the head, but it must soon begin to thicken, and especially when it approaches the shoulder. The duelap should be small; the breast, if not so wide as in some that have an unusual disposition to fatten, yet very far from being narrow, and it should project before the legs; the chine, to a certain degree, fleshy, and even inclining to fullness; the girth behind the shoulder should be deeper than it is usually found in the Short Horn; the ribs should spread out wide, so as to give as globular a form as possible to the carcase, and each should project farther than the preceding one to the very loins, giving, if after all the milch cow must be a little wider below than above, yet as much breadth as can possibly be afforded to the more valuable parts. She should be well formed across the hips and on the rump, and with greater length there than the milker generally possesses; or if a little too short, not too heavy. If she stands a little long on the legs, it must not be too long. The thighs somewhat thin, with a slight tendency to crookedness, or being sickle-hammed behind; the tail thick at the upper part, but tapering below; and she should have a mellow hide, and little coarse hair. Common consent has given to her large milk veins; and although the subcutaneous or milk vein has nothing to do with the udder, but conveys the blood from the fore part of the chest and sides to the inquinal vein, yet a large milk vein certainly indicates a strongly developed vascular system—one favorable to secretion generally, and to that of the milk among the rest.

"The last essential in a milch cow that we shall mention is the udder, rather inclining to be large in proportion to the size of the animal, but not too large. It must be sufficiently capacious to contain the proper quantity of milk, but not too bulky; lest it should thicken and become loaded with fat. The skin of the udder should be thin, and free from lumps in every part of it. The teats should be of moderate size; at equal distances from each other every way; and of equal size from the udder to nearly the end, when they should run to a kind of point. When they are too large near the udder, they permit the milk to flow down too freely from the bag, and lodge in them; and when they are too broad in the extremity, the orifice is often so large that the cow cannot retain her milk after the bag begins to be full and heavy. The udder should be of nearly equal size before and behind, or, if there is any difference, it should be broader and fuller before than behind.

"The quantity of milk given by some of these cows is very great. It is by no means uncommon for them, in the beginning of summer, to yield 30 quarts a day: there are rare inctances of their having given 36 quarts; but the average measure may be estimated at 22 or 24 quarts. It is said that this milk does not yield a proportionate quantity of butter; and that, although these cows may be valuable where the sale of milk is the prime object, they will not answer for the dairy.

"That their milk does not contain the same proportionate quantity of butter as that from the Long Horns, the Scotch cattle, or the Devons, is probably true; but we have reason to believe that the difference has been much exaggerated, and is more than compensated by the additional quantity of milk."

It is said that the milk increases in richness as the cows grow older. It is conceded on all hands that the Short Horns consume more food than any other breed.

The best *milk* breed of cattle are probably those selected by the London milkmen. The number of these is estimated at 12,000. The market price of a good dairy-cow is 20*l*. ($88.) They are with very few exceptions the Short Horn breed,—the Holderness or Yorkshire cow (described above) and almost invariably with a cross of the improved Durham blood. They are selected for their qualities for milk, as well as aptness to fatten: for they are rarely suffered to breed while in the dairyman's possession. When they cease to give a remunerating quantity of milk they are fattened and sold to the butcher. This is the case when they cease to give four quarts a day. The cows are principally kept constantly housed—their food and water being supplied in the stable, and are turned out to fatten in yards. They are fed principally with brewer's grains, to which cut clover and roots are added when these can be had at a reasonable price; oil cake is added to fatten. The grains are deposited in pits, lined with brick work set in cement, from ten to twenty feet deep, firmly trodden down, and covered nine inches with a layer of moist earth, to keep out the rain and frost in winter and heat in summer. They are thus preserved for all seasons of the year. They are sometimes kept in these, two years without being touched. A very accurate experiment was made by the Duke of Bedford, on the fattening quality of linseed, boiled and unboiled, in which the simple unboiled linseed fattened the animals more expeditiously than any cooked preparation of that seed. The average product of the London dairyman's cows is a little over nine quarts a day.

Although we have fulfilled the task we proposed, of describing the Devon and Short Horned cattle of Great Britain, we think it may not be uninteresting, particularly to cattle breeders, to take a brief notice of the *Long Horns*, and *Horn-less*, or *Polled* breeds, which form a considerable portion of the farm stock there, and from which our native breeds have in a great measure proceeded.

While the *Short Horns* were principally confined to Durham and York; and the *Middle Horns*, including the Devon, Hereford, Sussex, Welch and Scotch breeds, spread over the south, the north and a part of the east, the *Long Horn* cattle attracted the attention of the midland and some of the western districts of Great Britain. The first improvements noticed in this breed were made by Linton and Webster, but the greatest improvement was made by the celebrated Bakewell, of Dishley, in Leicestershire, whose improved cattle were sometimes denominated the Dishley breed. The points which this great breeder aimed at, were *beauty of form*; next *utility* of form, in distinction from *beauty* of form; 3. quality of flesh; and lastly, *fattening property*. Many years did not pass before his stock was unrivalled for the roundness of its form, the smallness of its bone, and its aptitude to acquire external fat; while they were small consumers of food in proportion to their size; but at the same time their quality as milkers became sensibly diminished. The *grazier* could not too highly value the Dishley long horn; but the *dairyman*, and *little farmer*, cling to the old breed as most useful to their purpose. It was his grand maxim, that the bones of an animal intended for food could not be too small, and that the fat being the most valuable part of the carcase, it could consequently not be too abundant.

The *polled* or *hornless breeds* are in repute in particular districts. The Galloway, from which Colling obtained a cross with the large Teeswater, as the basis of his improved Short Horns, is raised in vast herds in some parts of Scotland, and driven in the fall to the northern counties of England, where they are fattened for the London market. They are a hardy and docile race, admirably adapted for the grazier, yielding the finest meat in the British market. The cows are not good milkers; but though the quantity is small, it is rich in quality. A cow that gives 12 to 16 quarts a day is esteemed a great milker, and that quantity produces more than a pound and a half of butter. The average for the summer is not more than six or eight quarts.

The Galloway cattle are straight and broad in the back, and nearly level from the head to the rump. They are round in the ribs, and also between the shoulders and the ribs, and the ribs and the loins. They are broad in the loins without any large projecting hip bones. In roundness of barrel and fulness of ribs they will compare with any breed, and also in the proportion which the loins bear to the back bone, or protuberances of the ribs. When viewed from above, the whole body appears beautifully rounded like the longitudinal section of a roller. They are long in the quarters and ribs, and deep in the chest, but not broad in the breast, short in leg, and moderately fine in the shank bones. There is no breed so large and muscular above the knee, while there is more room for the deep, broad and capacious chest. He is clean, not fine and slender, but well proportioned in the neck and chaps. The neck of the bull is thick almost to a fault. The head heavy, the eyes not prominent, the ears large, rough and full of long hairs on the inside. Skin mellow, and of a medium thickness, clothed with long, soft and silky hair. The prevailing color black, but some are brindled brown. A beautiful heifer of the Galloway breed was slaughtered at Smithfield, which weighed 1920 pounds. Twenty to twenty-five thousand cattle are annually driven to England for feeding. The expense of driving them 400 miles is from 1*l.* to 1*l.* 4*s.* per head. We have the following amusing account of the economy of a Scotch drovier. "A mountainer will travel from fair to fair, for thirty miles round, with no other food than the oaten cake he carries with him, and what requires neither fire, table, knife nor other instrument to use. He will lay out the whole, or perhaps treble to all he is worth, in the purchase of 30 or 100 head of cattle, with which, when collected, he sets out for England, a country with the roads, manners and inhabitants of which he is totally unacquainted. In this journey he scarce ever goes into a house, sleeps but little, and then generally in the open air, and lives chiefly upon his favorite oaten bread. If he fail of disposing of his cattle at the fair of Carlisle, he is probably ruined, and has to begin the world, as he terms it, over again. If he succeeds, he returns home only to commence a new wandering, and a new labor, and is ready in about a month perhaps to set out again for England."

The Norfolk cattle are generally of the polled breed. They have supplanted here the middle horns. A warmer climate and richer soil have rendered them superior to the Galloway in size, but not in quality.

In Sussex, the polled breed has been manifestly improved, particularly for the dairy. In the hight of the season, some of these cows will give as much as eight gallons of milk in a day, and six gallons is not an unusual quantity. Three of them produced 683 lbs. butter from June to November. A Suffolk cow will make 150 lbs. butter, and 75 whey cheese in a season. They are of small size, and consume comparatively little food.

The *Alderney* cattle are of French origin. The cows are diminutive in size, but are remarkable for the richness of their milk, and the great quantity of butter which it produces.

The *Nagore* cattle are a species lately introduced into England from interior India. They are dissimilar in appearance to any hitherto known breed. The figure of the bull in the work before us, has a large lump upon the back over the fore shoulders, and an enormous dewlap dropping from the neck and the chaps to the lower point of the brisket. They are considered the highest breed of Indian cattle. They are used in India by the higher order to draw their state carriages, and are much valued for their size, speed and endurance, and sell at very high prices. They will travel fifteen or sixteen hours in a day, at the rate of six miles an hour. A pair reached England in 1829. Two calves have been bred from them, and a milch cow is now (1833) in calf by the bull.

Extraordinary Provision of Nature.

"Frost and snow," says a late writer,* "are but cheerless objects for contemplation; yet I would add a reflection on our passing events, or rather recall from memory the truth that science has made known to us, revived by the sight of that frozen pool. To the very simple circumstance: *ice floating and not sinking*,—are the banks and vicinities of all the rivers, lakes, pools, or great bodies of water in northern Europe, Asia, and America, rendered habitable; and what are now the most fertile and peopled, would be the most sterile and abandoned, were it not for this law of nature. Had ice been so heavy as to sink in water, the surface on freezing, would have fallen to the bottom, and a fresh surface would be presented for congelation; this would then descend in its turn, and unite with the other; and thus during a hard frost, successive surfaces would be presented, and fall to the bottom, as long as the frost or any fluid remained. By this means the whole body of the water would become a dense concretion of ice: its inhabitants would not only perish, but the indurated mass would resist the influence of the sun of any summer to thaw it and continue congealed throughout the year, chilling the earth in its neighborhood, and the winds that passed over it."

All this appears to be very reasonable; but there is another law of nature, discovered since the *Journal of a Naturalist* was written, which presents another wondrous view of the wisdom of Omnipotence. By means of an instrument called the Thermo-Multiplier, which is sensibly affected by the heat of a person at the distance of 25 or 30 feet, it is shown that though heat *radiates* through glass, rock-crystal, selenite, mica, oil, alcohol, and nitric acid, yet *the thinnest film of water or ice intercepts it entirely and completely*. In winter a large portion of the heat of bodies is lost by *radiation*, and if ice and water were not impermeable to radiant heat, many of our ponds, lakes, and rivers would freeze to the bottom, notwithstanding the buoyancy of ice. Our author therefore was not aware of all the perfection of nature.

From this remarkable property it follows that nothing protects tender plants in the open ground during our winters, so well as a covering of snow. It also assists us to explain the benefits of a process long since adopted by gardeners: when late vernal frosts occur, they shower cold water, very early in the morning, over such plants as are liable to be injured, being particular to finish the operation before sunrise. The first effect of this is to raise the temperature moderately, so as not to damage the plant by too great a transition; and previous to the discovery of this admirable law, it was supposed to be the whole effect; but we may now perceive it would only be momentary, and that during one hour of the coldest part of the morning, the plants would again freeze, were it not that the radiation was instantly and effectually stopped by the thin film of water or ice which enclosed them like a garment.

In common rooms, but more especially in Green Houses where the quantity of sash is great, the loss of heat by radiation in severe weather, must be very considerable, as the glass offers scarcely any resistance to its egress. When the fires go down, however, and the glass cools sufficiently to allow the moisture to condense on its surface, it then becomes impervious to radiant heat, and in this way in no inconsiderable degree, is the temperature regulated; yet the benefit of shutters, exclusive of their preventing the contact of currents of cold air, must be very evident; and *white* window curtains to admit a sufficiency of light, but closely drawn together in severe seasons to prevent radiation, may yet be considered of some importance in the economy of fuel.

* "Journal of a Naturalist."

For the Genesee Farmer.

Agricultural Institute and Pattern Farm.

From various indications of the public sentiment in different parts of the state, which have appeared during the past season, and from the recommendation of Governor Marcy in his late message to the Legislature now in session, the opinion may with some confidence be asserted, that this desirable measure for the promotion of our agricultural interests will soon be effected. The general outlines of the plan of operation have been so generally spoken of and discussed, that there is little doubt that the one suggested in the report of Mr. Skinner at the last session will be adopted. Already have reports from the various agricultural societies of the state, and many petitions from conventions and meetings of the citizens, been presented to the Legislature; and resolutions have been offered by a member, to instruct the committee on Agriculture to inquire into the propriety of reporting a proper bill for the promotion of the interests of the farmer.

There is one subject, however, which is highly important to the citizens of the state, and may have a serious effect on the extent of usefulness which the establishment may confer, that should be well and carefully considered. And that is, the location of the Pattern Farm. A country comprising so large a territory as the state of New-York, embracing according to Doctor Spafford 5 degrees of latitude, and, including Long Island, about 8 degrees of longitude, must necessarily possess great varieties of climate, atmosphere, altitude, surface and soil. Its waters are tributary to the Mississippi, St. Lawrence and Hudson rivers, and the Susquehanna and Delaware carry their waters far south into the lower bays of the Atlantic. From the St. Lawrence on the north to Staten Island on the south, there is a difference in vegetation of a month in spring, and as much in autumn; and a traveler may leave Buffalo early in May, with not a swelling bud on the trees, and in a two day's ride to Albany, he will find the trees in full bloom from Genesee river to Auburn. At Utica, and along the Mohawk, he finds the season still more backward than at Buffalo; and arriving at Albany, finds it but three days earlier. Let him enter a steam boat and pass down the river to New-York, and vegetation is three weeks in advance of him. Again let him start from Jamestown in Chatauque, or Ellicottville in Cattaraugus, near the southwestern parts of the state, and travel northerly to Lake Erie. There he will find vegetation a fortnight in advance. Go still on to Buffalo, and it recedes, but is earlier than where he began. Pass on again down the Niagara river, and it rapidly advances in steady progress, till at Lewiston near Lake Ontario, vegetation is three weeks earlier than when he started. In many parts of the state a much greater quantity of rain and snow falls annually than in others. In some, little grain can be grown, the soil being more congenial to grass; and in others, both may be raised in great variety and perfection. So with fruit. The south, and some portions of the middle and west, produce the peach and melon in abundance; while in the north and various other parts, they cannot be matured except by artificial means.

To find one location exactly suited for *all* these varieties, and where experiments may be made of the proper culture of *all* the vegetable family to which the different soils and climates of the state may be adapted, is not to be expected. Nor is it probable that two different sites will be selected at present by the Legislature, or the board of agriculture, if one be created, for the establishment. What, then, should be the object in the selection? There are several—and among them are,

1. A situation which in point of soil and climate will afford a *fair* opportunity of experiment in the cultivation of the *staples* of our state, and such as are necessary for the consumption of our citizens generally, and constitute profitable objects of agricultural industry. Among these may be classed the cultivation of corn, wheat, rye, oats, flax, barley, hemp, and grasses of all kinds, the various fruits of the state, and all kinds of domestic stock and animals.

2. The situation should be as near the geographical center of the state as the above requisition will admit. This object is too obvious to need discussion.

3. It should be as near as may be to the principal thoroughfares through the state, for the convenience of receiving the visits of our citizens.

4. It should be near water carriage, that large commodities may be with ease transported to and from it to distant places at small expense.

Now where can all these qualifications be best concentrated with a view to the *greatest convenience* of the *greatest number* of our citizens and farmers, who are to derive a benefit from the institution?

I answer distinctly and decidedly, at Whitesboro' near Utica, on the Erie canal. In point of climate it is not so good for the average of the state as at Syracuse or Auburn. But these places are too far west. Albany may be preferred by some as being near the seat of government, and on all accounts as most convenient. To this I answer, that Albany *may not always* be the capitol of the state, especially if her western citizens claim their geographical rights in its location; and besides, the soil near Albany is not so well adapted for general experiments as that of Whitesboro', it being generally of a light sand or clay, excepting the river bottoms, and requiring great expenditure of manure to fit it for cultivation. At Whitesboro' a variety of soil exists, from the richest Mohawk bottoms to light and gravelly uplands, with good medium lands, well adapted to general culture. The climate is good for all kinds of fruit excepting peaches, nectarines and apricots, and the more delicate kinds of grape; and it lies in the heart of a rich and flourishing farming country, and near a large and wealthy market town. The distance from Mayville in Chatauque co., is 270 miles. From Ellicottville in Cattaraugus, Buffalo in Erie, and Lewiston in Niagara, it is 200 miles. It is 120 miles south of Ogdensburgh on the St. Lawrence, and about 150 miles southwest of Plattsburgh on Lake Champlain, 130 from the east line of the state, and 250 from the city of New-York. Including Long Island, the distance is much further; but as that and a large portion of the territory near New-York is mostly occupied in cultivating supplies for that market, it is more local in its agriculture than any other portion of the state, and from its easy water communication, is in fact much nearer Whitesboro' than Buffalo.

Another consideration may be important. Hamilton college, a state institution, liberally endowed, and furnished with a chimical apparatus, &c. &c. is but eight miles distant, from which some assistance might be drawn. This, however, may be altogetner contingent, and need not be reckoned into the account.

Taking therefore the above named considerations into view, it appears to me the Legislature will act wisely to make such a central location as will be most satisfactory to the citizens, and best subserve the interests of the state. I have no local bias or interest to gratify, and only feel as a western citizen, anxious for the promotion of the great cause of agriculture. Other wishes in relation to this, I have none.

Another object in the constitution of this establishment I think important; and that is, the formation of an annual board of visitors, to be elected by the agricultural society of each county, and to consist of one or two members, who should be well qualified to judge of the progress and value of the institution, and make an annual report of the same to the Governor, and which should be laid before the Legislature at each session; and then, by having each county entitled to send a number of students in proportion to its representation in the general Assembly, the benefits of the institution would be dispersed with signal benefit to the extreme portions of the state, and prove of incalculable advantage to our wealth and prosperity.

Doubtless, however, all these views, and many others, will be taken into consideration by the proper committees now in session, who may receive important assistance from the experience of the able officers of the State Agricultural Society, who are near them. The Society will soon meet at its annual session in February, and it is hoped, will take such measures in relation to it as shall most redound to its advantage. ULMUS.

For the Genesee Farmer.

Seeding Land with Grass Seed.

I have been surprised to see men, calling themselves farmers, leaving their fields unseeded with grass seed after wheat. The evils resulting from this practice are so obvious, that I should suppose every farmer of observation would discover them. If we do not sow grass seeds upon our lands when we design to let them lie uncropped a year or two, rely upon it, *weeds will occupy the soil.*

Every enlightened farmer knows that a crop of grain takes from the soil a portion of its fertility, and that with the best management, it is nearly impossible to restore its wasted strength from the barn yard alone. But he has discovered that with the aid of grasses, he may not only restore, but increase, the fertility of his land.

There are very few farmers in this country, more successful than the Germans of Seneca county; and their uniform practice is, to sow eight to twelve pounds clover seed on their wheat, and then about one bushel plaster, which is renewed every year. After mowing or plastering a year or two, a heavy crop of clover is turned into the soil, and wheat again sown, which frequently produces thirty to forty bushels per acre. I have known that country more than twenty years, and am confident that this mode of farming has increased the fertility of the soil—that their crops of wheat are heavier than when I first visited it. But this is not all. Many of them sell clover

seed annually to the amount of one to two hundred dollars.

Many suppose that land recovers its fertility by lying idle. I believe this to be a mistaken opinion; but suppose it is not, would it not be more to the interest of the farmer, that his fields should produce him two tons of hay per acre for a year or two, and then as heavy a crop of wheat as if they had received twenty loads of manure per acre? That they will do this, I can testify from my own experience. But, says the farmer, "clover seed is very expensive." It is true that it will cost about one dollar per acre; but if he receive in return ten times its cost in grass, and increased fertility of land, is he not the gainer?

I prefer sowing both timothy and clover. I sow per acre, one peck timothy seed in autumn before harrowing in my wheat the last time, and six to eight pounds of clover seed only in the spring, and find that this abundant seeding gives me better grass for pasture or hay, and more of it; and the ground being completely covered, the crop suffers less from drouth. Light seeding is bad economy. If we sow lightly we shall gather lightly, and much of the ground being bare, the crop suffers severely from the influence of the sun.

It may be expected that I should say something of the different kinds of clover. I prefer the Pennsylvania, because it stands up better, will answer to sow thicker, and makes better hay. The large kind may be nearly equal as a manure, but it is not only more difficult to cut and cure, but when cured, cattle leave nearly all the coarse straw.

ONTARIO.

For the Genesee Farmer.

Alternate Husbandry.

Alternate husbandry is that system of farming which appropriates most or all of a farm to meadow, pasture and tillage, in succession. It is particularly adapted to light soils, where sand and loam predominate; and, where draining has been well attended to, is beneficially applied to all soils. Under the old system of dividing a farm permanently into "suitable divisions of plough, meadow and pasture land," the meadow and plough land were pretty sure to deteriorate. I have in my eye a farm of this description, of 150 acres, on which the owner, with a tolerable share of industry and prudence, was merely enabled to make "both ends of the year meet." The meadow became so unproductive as scarcely to yield a ton of hay per acre. The finer grasses had disappeared, because the soil could no longer afford them their specific food, and were replaced by a thin herbage of June or spear grass and other varieties. This was not owing to poverty of soil, but to causes which a little science would have taught him to remedy. The soil had become too compact and impervious to admit the due influence of heat, air and water upon it. The vegetable food remained inert in its bosom, for want of these agents to decompose and convey it to the plants. The plough land was exhausted by a succession of crops, which all the manure saved upon the homestead could not counterbalance. The pasture suffered least; for although the grass was diminished, and the mosses had taken pretty strong hold of the surface, the herbage was rich and nutritious. At length the farm passed into other hands, and a system of alternate husbandry was introduced. The grounds were drained, and some of the best parts brought into profitable culture; the old pastures and meadows were broken up, and the plough land put down to grass. The vegetable food in the old sod sustained a fine crop of grain; and the clover, with the aid of plaster, gave a most bountiful product. Not more than three tillage crops were taken, and these dissimilar, before grass seeds were sown; and not more than three seasons in grass or pasture, before it was returned again to the plough. Under this system the farm rapidly improved. The meadows now gave two and three tons of hay; and the manure which the stock fed upon this afforded, enabled the owner to enrich that portion which was under the plough; and the tillage ameliorated and fitted the ground for the coming crop of grass, while both contributed to improve the pasture. In ten or twelve years, under this alternate system of husbandry, the old farm of uncle Zeph. has nearly trebled its products, and is said to yield a net profit of from twelve to fifteen hundred dollars a year.

U.

Saratoga, Jan. 1834.

For the Genesee Farmer.

A New and Valuable Grape, the "TO KALON."

On a recent tour to the east, a friend of mine from Lansingburgh informed me that the widow of the late Dr. Spafford had growing in her garden and now bearing profusely, a new and valuable grape, a *seedling* from a foreign variety, originated by her husband. The variety from which it was produced he was not able to inform me. It is described as a purple grape of an oval shape, larger than the Isabella, close set upon the cluster, very delicious, pronounced by some foreigners from vine growing countries equal to any they have seen in Europe, a very great bearer, and what renders it particularly valuable in this climate, is *perfectly hardy*, as much so as any of our native grapes. As a proof of its hardiness and adaptation to our climate, it endured the severity of the winter before last, *uncovered, without sustaining any injury*, while in some parts of our country, some of our native varieties were nearly killed.

The gentleman who communicated this information, agreeable to his promise, has recently forwarded a box of the cuttings of this grape, with a communication, in which he says: "I last Saturday sent to Troy a box of grape vines, to be forwarded by canal to you. There is but one kind, the 'To Kalon,' or Spafford Grape, now considered here *the finest we have.*" If as fine as described, it is worthy its name, "*To Kalon,*" *the beautiful* and *good.* This American *daughter* of an European *parent*, will prove a valuable acquisition to the American vigneron and horticulturist, and will add one more to our choice hardy grapes; while it affords another proof of the truth of the theory advanced by the present writer in a former number,* that the only true way to acclimate the Eurropean grape (*Vitis vinifera*) is to raise it from the seed. This successful experiment of our late distinguished citizen, and friend and patron of agricultural and horticultural science, Dr. Spafford, should stimulate others to like experiments, to obtain new and choice hardy varieties, by sowing the seed of the best European kinds. We have several valuable hardy grapes which have been produced in this way. The *Herbemont's Madeira* (called after the distinguished gentleman who was supposed to have originated it, in South Carolina, and who has done much by his writings in the Baltimore American Farmer, to promote the knowledge and practice of this interesting branch of rural industry,) is a seedling of a *hardy character* adapted to our climate, and said to be a very superior grape for wine and for the table. It is the grape which he principally cultivates in his vineyard, for wine; of a thin skin, and abounding in a rich purple juice. Such is its hardy character, that it was thought by some to be a native American grape; but Mr. Herbemont considers it a seedling of a European variety, though not produced by himself. It is well known that most of the valuable varieties of grapes cultivated in Europe, have been originated by sowing the seed. It is thus that new varieties are constantly formed. *We,* Americans, by the same practice, may derive the same advantage, with the additional advantage to us, of obtaining vines adapted to our climate. We are glad to see that the attention of our nurserymen and cultivators is awakened to the subject, and that experiments are now making. We anticipate, as we have reason, the most favorable results.

W. W. B.

Hammond's Port, Dec. 19, 1834.

* Gen. Far. Vol. 3, p. 61.

For the Genesee Farmer.

Legislative Aid to Agriculture.

I perceive the subject of a State Agricultural Society, as also a State Seminary, for the promotion of that species of knowledge, are agitated in your useful record, as well as in other parts of the state. That they ought to excite the solemn attention of the farming interest, is as evident as we have a being. Although the whole body are deeply interested in the result, yet the landed interest is directly urged to give it the most serious consideration.

1. A Seminary, in which shall be taught those branches of knowledge which it is especially necessary for the agriculturists to know—and

2. A State Agricultural Society, composed of enlightened persons—farmers and others—to meet and give the result of all such facts and knowledge to the public as may be by them deemed needful—or

3. If more desirable, and as more complete and thorough, let there be Agricultural Societies formed in every county in the state, and for each to send a delegate, or delegates, to attend the Society, or the convention, once in each year, at such central place as may by law be established—or to meet once a year, alternately at Albany and at some western village—the representatives of each county to deliver reports of proceedings of each county—and then the State Society, by having all the proceedings before it, of the county societies, be enabled to pursue a systematic course of developing such facts as experience might indicate for the information of the farmers and the people of the state.

By this mode the most approved methods of farming known, would be diffused throughout the whole country,—the minds of the yeomanry would gradually become more thoroughly cultivated—and the most striking pecuniary results would be, to render farms more productive and

valuable in this state. It would invite men of wealth to become citizens of this state from other countries,—a greater field for laborers and those engaged in the mechanic arts would be opened,—manufactures extended, population increased, and the power and resources of the state greatly promoted. Farmers have only to combine, so potent are they in numbers, and the work will begin. The intelligence of that part of the community not employed in agricultural pursuits, always indicated liberal feelings to the farming class of our people,—and thus seem willing when occasions present, to give fiscal aid, by way of state support; and yet, though what is done be directly for the farming interest, the farmers seem, in the mass, to be ignorant of it, discover a lassitude and indifference which nothing but unimproved minds and morals can account for. Constant applications are made to the Legislature for assistance for a great variety of other objects, by charters and otherwise, yet the great and powerful body, the support of all in peace and in war, are dead to their own interest. Nothing but energy and spirit is needed to make themselves a race of men peculiarly favored, and renowned for all the qualities which render men great and virtuous. This state has advantages, in lands, canals, lakes, and rivers, unequalled on the globe, for the use of man; and yet so inert are the farmers, they remain quiet and seem willing to plod on and to be drones for the more cultivated classes of society. If it be possible to spread here a small portion of the light which prevails among our eastern brethren, or that which we behold so much cherished by farmers in England, let it be done. If the farmers will not move, let our more enlightened citizens and members of the Legislature, strike out a plan—let an appeal to the farmers be *once more* made, for their credit and interest, and that of the honor of this great empire State.

Jan. 19. A FARMER OF CAYUGA.

For the Genesee Farmer.

Hog Troughs.

This is indeed a humble caption, Mr. Editor, and may cause the fastidious to throw down your paper in disgust; and the more humble farmer who reads to improve his knowledge of agriculture will say,—"Who does not know how to build a hog trough?" True—any one can make a *thing* which a hog may condescend to eat out of; but it is owing in a great measure to his good manners, that he does not oftener turn up his nose in disgust at the very unseemly dish in which his repast is served up. A dug out trough, with one end poking through the door-yard fence and the remainder in the street, is the common receptacle of the good things which a farmer has to bestow upon his swine. I know of some of my neighbors who have used a trough even more humble than this, made by the swine themselves, and not liable to two very serious objections to the dug out one—viz: it is not easily overturned, and never rots. As timber is growing scarce, and the skill of making bass wood sap troughs becoming obsolete, I would suggest a method of making this necessary appendage of a farm yard, more in unison with the cultivated habits of the present age. Take two pieces of plank, a foot or two in length, eight or ten inches wide; saw out of each a triangular piece in this form, —nail in this angle boards of the required length and width, taking the pieces sawed out of the plank for end pieces. Nail it well, and you have a trough not liable to be overturned, never will leak, and not exposed to rot. The better way is to apply an iron square and mark the angle accurately, that both ends be alike, and to have the lower edge of the boards jointed. I think a farmer's own sagacity will indicate how near the ends to have the plank, and the whole process of making a trough on the proposed plan. Care ought, however, to be taken in sawing out these angular pieces accurately so that they will fit well to the ends of the trough. Yours, &c. O. P. Q.

East Bloomfield, Jan 15, 1834.

For the Genesee Farmer.

Chess and Smut.

If your correspondent at Pultneyville* will turn to page 238 of your last volume, he may find that *wheat on a wet soil will not turn to chess.*

At pages 131, 223, and 252, he may find that bad seed, poor soils, and unfavorable seasons are not the cause of SMUT. If he will turn to page 268 he may see that smutty seed wheat after being *thoroughly* washed with *simple water* produced no SMUT; and at page 252 he may discover that plants of wheat infected with it, instead of being "six or eight inches" *shorter*, "may be easily distinguished in the field by being several inches *higher* than the plants not infected."

W. R.

For the Genesee Farmer.

MESSRS. L. TUCKER & Co.—Having watched the progress of your wheat and chess correspondents, for a long time, I saw well that none of them hit upon the truth until I saw Mr. Russel Whipple's account in the Farmer of 21st Dec. 1833. Knowing from experience that his statement is true, I beg leave to give my judgment as such—yet "one thing he lacketh"—that is, feeding off with sheep in the fall. A neighbor of mine, a large and opulent farmer, some years ago fallowed one half of a large field. After sowing the wheat, in running his division fence he left some of the wheat in the pasture field, which he pastured with sheep in the fall. In the spring he put nothing on the pasture, reserving it for meadow That wheat, or what was sown wheat (the same as sown the other side and fenced in without pasturing,) was almost all chess; and there was scarcely any chess on that side of the fence not pastured in the fall. This I was an eye witness to. If any of your chess correspondents will come and point out any two acres on my farm, I will plough, say fallow them, they shall have the liberty to sow them both with clean wheat, and I will bet the price of any two acres of wheat in the state of New-York, that I will show plenty of chess on the one acre and almost none on the other. So much for A SCOTCHMAN.

For the Genesee Farmer.

Singular Fact.

MESSRS. L. TUCKER & Co.—There is one circumstance which at first sight would appear somewhat surprising. Take a tub, fill it nearly full of water, put it on a scale and balance it with weights exactly—then add a living fish to the water of 10 lbs. weight—the scale will remain balanced. Perhaps some of your correspondents can explain this phenomenon satisfactorily, and by doing so will oblige, Yours, R. M. W.

* Gen. Far. Vol. 3 p. 406.

For the Genesee Farmer.

Simple Remedy for a Catarrh

(OR COLD.)

I have at various times within the last seven years been suddenly relieved from catarrh in its incipient stages, by drinking early in the morning, or at bed-time, a pint or more of *cold water*. During periods of three or four days, the symptoms,—such as increased sensibility to cold, lassitude, and defluxions from the nose,—have in various instances recurred in the mornings and evenings, but on taking the draught, I have generally found myself better; and sometimes two or three draughts have been sufficient to effect a cure. Four days ago, a catarrh commenced; only simple cold water was employed as a remedy; I went out in the wind as usual; and last evening, finding myself free from disease, I discontinued the medicine.

To drink a large cup of cold water, when we are not prompted by thirst, is not very pleasant; but like other physic, it may be readily taken. I have found it invariably to increase the perspiration. With regard to its use in the latter stages of catarrh, I have no testimony to offer.

VERITAS.

For the Genesee Farmer.

Rensselaer County Agricultural

CONVENTION.

Pursuant to public notice, a meeting was held on the 14th Jan. at the Mansion House in the city of Troy. Hon. *Horatio Hickok* was called to the Chair, and *John J. Veile*, appointed Secretary. The object of the meeting having been explained, on motion of Col. H. I. Genet—

Resolved, That we do now proceed to form an Agricultural Society for the county of Rensselaer, and that a Committee be appointed to draft a Constitution, and to report suitable names for the officers of the Society.

The following persons were appointed said committee, viz: Philip Veile, Horatio Hickok, Bethel Mather, Peter Abbott, H. D. Grove, Christopher Van Pelt, Geo. T. Dennison, H. I. Genet, and Orin Goodrich.

On motion a committee of five were appointed to draft resolutions expressive of the sense of this meeting. A. Knickerbacker, John J. Veile, Alexander Walsh, N. M. Masters and E. F. Willey, were appointed such committee.

The committee, after having retired a short time, reported as follows: The committee on constitution and officers reported a Constitution, which, after some amendment, was adopted. They also reported the names of the following persons for officers of said society, viz:

Edmund C. Genet, President—Moses Warner, 1st, Martin Spunger, 2d, Smith Germond, 3d, Bethel Mather, 4th Vice-Presidents. Philip Viele, Corresponding Secretary—David C. Norton, Recording Secretary, Alexander Walsh, Treasurer.

Henry Vanderburgh, H. D. Grove, and John J. Viele, together with the officers of the Society, constitute the Executive Committee. A committee of two from each town was also appointed to circulate a petition to the Legislature, and obtain members to the Society.

The following persons were appointed said committee, viz:

Troy, Thomas White, Philip Viele—Lansingburgh, Elias Parmelee, John C. Filkin—Schaghticoke, Bethel Mather, A. Knickerbacker—Hoosick, C. Lansing, jr., J. B. Lottridge—Petersburgh, Stephen Reynolds, jr., Aaron Worthington—Grafton, Ziba Hewit, Z. P. Burdick—Berlin, I. W. Thomas, Hezekiah Hull—Brunswick, Mr. Van Pelt, Mr. Derrick—Stephentown, Erastus Brown, Nathan Howard—Nassau, Silas Ambler, John Van Dusen—Sandlake, Richard Spencer, jr., Col. Knoulson—Greenbush, Isaac Ai-

kin, John Defreest—Scodack, Henry Vanderburgh, Oren Goodrich.

Mr. J. J. Viele from the Committee on Resolutions, reported—

Whereas, meetings have been held in several of the counties of this state, in which petitions to the Legislature have been adopted and signed, praying for an appropriation of public moneys for the improvement of Agriculture; and believing such appropriations due the farming interests, and warranted by the highest considerations of public utility, therefore

Resolved, That we will cordially unite in such applications, and recommend that a petition for that purpose be forthwith prepared and circulated.

Resolved, That we hail the present as an era auspicious in the annals of the Agriculture of our country, that we view with pleasure the efforts now making to enhance its prosperity, to elevate its character, and to increase its productions.

Resolved, That in the opinion of this meeting, the honor and glory of our state would be promoted, the interest of our country advanced, and the standard of agricultural character elevated by the establishment of a State Society, with branches in the several counties of this state, for improvement in agriculture and the household arts, with an adequate appropriation, to be distributed or expended in such a manner as shall be most conducive to our object; also a state school, or schools, on a liberal plan, where the sons of Farmers can be educated for their professions, where experiments shall be made in all the various branches of husbandry, and where a direct applicaton of science shall be made to the useful purposes of life, thereby developing the physical resources of our country, and calling into action her moral and intellectual powers.

Resolved, That as farmers, we deprecate the alarming increase and spread of noxious weeds, particularly the Canada Thistle, and that we pledge our individual and united exertions to arrest the evil, and that in our opinion a law ought to be passed by the present Legislature, with penal enactments, making it the duty of town officers to see them enforced, that the march of the invaders may be arrested, if not entirely routed and driven from our shores.

Resolved, That the Senators from the third district and the members of Assembly from this county be respectfully requested to use their exertions to carry into effect the above mentioned projects.

Resolved, That we recommend to the patronage of the farmers of this county, agricultural journals, particularly the New-York and Genesee Farmers, as being most efficient aids to our improvements and the accomplishment of our purposes. And it having also been represented that a monthly agricultural paper, to contain 16 quarto pages in each number, is proposed to be published in Albany, if sufficient encouragement is afforded, at the very low price of twenty-five cents the year; and believing such a publication devoted to useful knowledge would be eminently calculated to do good, Therefore further resolved, that we will do all in our power to aid in the project and in the circulation of such paper.

Resolved, That N. M. Masters, H. I. Genet, Geo. T. Denniston and C. Lansing, jr. be the Delegates from this Society to attend the State Agricultural Society on the 12th of February next.

Resolved, That E. F. Wiley, Philip Viele and H. I. Genet be a committee to prepare an address to the farmers of this county.

Resolved, That the Editors of the several papers in the third Senate district, the New-York and Genesee Farmers, and all others friendly to the objects of this meeting, be requested to publish its proceedings.

The meeting then adjourned to meet on the first Wednesday in Oct. next, at such place as the executive committee shall deem proper.

HORATIO HICKOK, *Ch'n.*
JOHN J. VEILE, *Sec'y.*

Neither give to all, nor contend with fools.

Notices, &c.

"THE CULTIVATOR."—The success which has attended the Temperance Recorder has induced the friends of Agricultural improvement at Albany and its vicinity to attempt the establishment of a monthly Agricultural paper on the same plan, and a specimen, bearing the above title, has been issued. It is to be published at 50 cents per annum to single subscribers—37½ cents to a subscriber for 5—31 cents for 10 copies, and at 25 cents for 20 or more copies—so cheap as to leave every farmer without excuse for not reading something upon the subject of his daily pursuits. Each No. is to contain 16 large octavo pages, and the twelve numbers will make an annual volume of 192 pages. It is expected that the Cultivator will be published by the Executive Committee of the New-York State Agricultural Society, under whose auspices it cannot fail of being a highly valuable work.

THE LARGE OATS.—The friend, from whose letter we gave an extract on page 393, vol. 3, relative to a new kind of Oats, said to weigh 48lbs. to the bushel, in a letter of the 14th inst. says—"I have weighed the produce of the English, Oats, and find they will hardly weigh 40 lbs. the bushel, which is a loss of 8 lbs. compared with the seed."

N. Y. S. AG. SOCIETY.—The annual meeting of this Society is to be held in Albany on the 12th of Feb. inst. The President of the Society, Judge Buel, will deliver an Address, and Addresses are also expected from several other gentlemen.

RAIL ROAD JOURNAL.—We are gratified to learn that this valuable periodical is to be continued. The third volume commenced with the present year. Such a work is much needed, and it is to be hoped that it will receive a more liberal support than has hitherto been extended to it. Terms $3 per annum in advance.

"SUTTON'S GENEVA DOUBLE DASHER CHURN."—A churn, with this name, which will produce butter from new milk in the space of three or four minutes, is advertised in the Harrisburgh (Pa.) Reporter. We shall be obliged to any one acquainted with this churn, who will furnish us with a description of it.

VOLS. 1, 2, AND 3, BOUND.—Gentlemen wishing to procure the previous volumes of the *Genesee Farmer*, are informed that they may be obtained on application through our agents in the following places:

Albany—William Thorburn, Seedsman, 347 North Market-Street.
Canandaigua—Morse & Harvey, Booksellers.
Auburn—H. Ivison & Co. do.
Batavia—Sherman & Crandall.
Lockport—N. Leonard, Bookseller.
York, and *Dundas, U. C.* } E. Leslie & Sons, Book's.

AGRICULTURAL ENTERPRIZE.—Mr. Felix Renck, a successful agriculturist, of Ross co. Ohio, has been delegated by a society to repair to England for the purpose of purchasing a stock of the finest cattle to be obtained, which is to be introduced into this country, for the purpose of improving our breed.

The Cattle Market at Brighton, Mass. is said to be superior to any on the Continent. Cattle are sent there from the far West, as well as from New York, and the New England States. In 1833, the number of head sold is stated at 160,596, valued at $1,411,153.

"A FARMER," has been received, and will appear next week. We thank the writer for his friendly letter, and hope he will become a frequent contributor to our paper.

PRICES CURRENT.

ARTICLES.	PER	ROCHESTER. Jan. 31.	NEW-YORK. Jan. 27.
Ashes—Pot....	100lbs.	$3,75 a 0,00	$4,25 a 4,27
—— Pearl..	.....	4,00 a 4,25	4,70 a 4,75
Beeswax, yellow	lb.	0,16 a 0,18	21 a 22
Candles, mould	.....	0,10½a0,11	13.a 14
—— dipped.	.....	0,10a0,10½	10½ a 12
Cloverseed....	.....	.....	8..a..9
Flax, American.	.....	.....	8..a..9
Flax seed, clean	tierce	9,00a10,00	17,50....
Flour, Western.	barrel	4,50 a 0,00	5,44 a5,75
Grain, Wheat..	bushel	0,87 a 0,90	.....
—— Rye....	.....	0,62.....	72.a..75
—— Oats...	.....	0,27.....	42.a..44
—— Corn...	.....	0,56.....	66.a..70
—— Barley..	.....	0,50.a..56	70.a..71
Hemp, Americ'n	ton	.....	100 a 125
Hops, 1st sort..	lb.	.....	18.a..19
Plaster Paris...	ton	6,00 a 0,00	3,00a....
Beef, Mess....	barrel	0,00 a10,00	8,75 a 9,50
—— Prime....	.....	0,00 a 8,00	5,50 a 5,75
Pork, Mess....	.....	15,00	14,25a15,00
—— Prime....	.....	11,00	10,50a11,00
—— in the hog.	100lbs.	4,50 a 5,50	.....
Hog's Lard....	.....	8,00 a 9,00	9,00 a 9,50
Tallow.....	.....	8,00 a 9,00	8,75.....
Hay.....	ton	7,00 a 8,00	11,20 a....
Apples.....	bushel	25.a..50	.....
Potatoes.....	.....	25.a..00	.....
Cheese.....	lb.	5.a...8	7½a....
Butter.....	.....	14..a.16	15.a..17

Durham Cattle for Sale.

A FEW choice animals of the pure "Improved Durham Short Horn" breed, consisting of *Bulls, Cows, Heifers* and *Calves*, may be obtained of the subscriber, if applied for soon.

CALEB N. BEMENT.
Albany, Feb. 1, 1834. feb 1-f4t

For Sale,

A LEVELING INSTRUMENT or spirit level, with a tripod—price 75 dollars. Apply to DAVID THOMAS,
Jan. 10, 1834. near Aurora in Cayuga county.

Albany Seed Store and Horticultural Repository.

THE subscriber having resumed the charge of the above establishment, is now enabled to furnish traders and others with FRESH GARDEN SEEDS, upon very favorable terms, and of the growth of 1833, *warranted* of the best quality.

The greatest care and attention has been bestowed upon the growing and saving of Seeds, and none will be sold at this establishment excepting those raised expressly for it, and by experienced seedsmen; and those kinds imported which cannot be raised to perfection in this country; these are from the best houses in Europe, and may be relied upon as genuine.

It is earnestly requested whenever there are any failures hereafter, they shonld be represented to the subscriber; not that it is possible to obviate unfavorable seasons and circumstances, but that satisfaction may be rendered, and perfection approximated.

Orders will be punctua'ly attended to, and carefully packed and forwarded as directed. But as the collection of distant debts is often troublesome, and sometimes impracticable, it is desired that satisfactory references may be made to persons in *Albany*, when the order is not accompanied with the money.

Also, French Lucern, White Dutch Clover, White Mulberry Seed, genuine Mangel Wurzel, Yellow Locust, Ruta Baga, and Field Turnep Seeds, well worth the attention of *Farmers*.

W. THORBURN,
347 N. Market-st. (opposite Post Office.)

☞ Catalogues may be had at the Store; if sent for by mail, will be forwarded gratis: *orders* solicited early, as better justice can be done in the execution.

Albany, Jan. 21, 1834. feb1-f4tr1ta1t

Science of Agriculture.

ORIGIN AND PRINCIPLES OF CULTURE AS DERIVED FROM THE STUDY OF VEGETABLES.

The final object of all the sciences is, *their application to purposes subservient to the wants and desires of man.* The study of the vegetable kingdom is one of the most important in this point of view, as directly subservient to the arts which supply food, clothing and medicine; and indirectly to those which supply houses, machines for conveying us by land or by water, and in short almost every comfort and luxury. Without the aid of the vegetable kingdom, few mineral bodies would be employed in the arts, and the great majority of animals, whether used by man as laborers, or as food, could not live.

Agriculture and gardening are the two arts which embrace the whole business of cultivating vegetables, for whatever purpose they are applied by civilized man. Their fundamental principles as arts of culture are the same; they are for the most part suggested by nature, and explained by vegetable chimistry and physiology, and most of them have been put in practice by man, for an unknown length of time, without much reference to principles. All that is necessary, therefore, for effecting this branch of culture, is to imitate the habitation, and to propagate. This is, or ought to be, the case, wherever plants are grown for medical or botanical purposes, as in herb or botanic gardens. Nature is here imitated as exactly as possible, and the result is, productions resembling, as near as possible, those of nature.

To increase the number and improve the qualities of plants, it is necessary to facilitate their mode of nutrition by removing all obstacles to the progress of the plant. These obstacles may either exist under or above the surface; and hence the origin of draining, clearing from surface incumbrances, and the various operations as digging, ploughing, &c. for pulverizing the soil. Nature suggests this in accidental ruptures of the surface, broken banks, the alluvial depositions from overflowing rivers, and the earth thrown up by nnderground animals. Many of the vegetables within the influence of such accidents are destroyed, but such as remain are ameliorated in quality, and the reason is, that food is increased, because their roots, being enabled to take a more extensive range, more is brought within their reach.

It is necessary, or at least advantageous, to supply food artificially; and hence the origin of manuring. All organized matters [animal and vegetable substances] are capable of being converted into food for plants. But the best manure for ameliorating the quality, and yet retaining the chimical properties of plants, must necessarily be decayed plants of their own species. It is true that plants do not differ greatly in their primary principles, and that a supply of any description of putrescent manure will cause all plants to thrive, but some plants, as wheat, contain peculiar substances, (as gluten and phosphate of lime,) and some manures, as those of animals, or decayed wheat, containing the same substances, must necessarily be a better manure or food for such plants. Manuring is an obvious imitation of nature, every where observable by the decaying herbage of decaying plants, or the falling leaves of trees, rotting into dust or vegetable mold about their roots, and by the effect of the dung left by pasturing or other animals.

Amelioration of climate is further advantageous, in improving the quality of vegetables, by increasing or diminishing its temperature, according to the nature of the plant; unless indeed, it is situated in a climate which experience and observation show to be exactly suited to its nature. Hence the origin of shelter and shade, by means of walls, hedges or strips of plantation; of sloping surfaces or banks, to receive more directly or indirectly the rays of the sun; of rows, drills and ridges, placed north and south in preference to east and west, in order that the sun may shine on both sides of the row, drill or ridge, or on the soil between rows and drills, every day in the year; of soils better calculated to absorb and retain heat; walls fully exposed to the south or the north; of training or spreading out the branches of trees upon these walls; of hot walls; of hot beds; and finally of all the variety of hot houses. Nature suggests this part of culture, by presenting, in every country, different degrees of shelter, shade and surface, and in every zone different climates.

The regulation of moisture is the next point demanding attention; for when the soil is pulverized, it is more easily dried by the penetration of the air; when an increase of food is supplied, the medium through which that food is taken up by the plant should be increased, and when the temperature is increased, the evaporation becomes greater. Hence the origin of watering by surface or subterranean irrigation, manual supplies to the root, flowering over the leaves, steaming the surrounding atmosphere, &c. This is only to imitate the dews and showers, streams and floods of nature; and it is to be regretted that the imitation is in most countries attended with so much labor, and requires so much nicety in the arrangement of the means, and judgment in the application of the water, that it is but very partially applied by man in every part of the world, except in Italy. But moisture may be excessive; and on certain soils at certain seasons, and on certain productions at particular periods of their progress, it may be necessary to carry off a great part of the natural moisture, rather than let it sink into the earth, or draw it off where it has sunk in and injuriously accumulated, or prevent its falling on the crop at all; and hence the origin of surface drainage by ridges, and of under draining by covered conduits, or gutters; and of awnings and other covers to keep off the rain or dews from ripe fruits, seeds or rare flowers.

The regulation of light is the remaining point. Light sometimes requires to be excluded and sometimes to be increased, in order to improve the qualities of vegetables; and hence the origin of thinning leaves which overshadow fruits and flowers, the practice of shading cuttings, seeds, &c. and the practice of blanching. The latter practice is derived from accidents observable among vegetables in a wild state, and its influence on their quality is physiologically accounted for by the obstruction of perspiration, and the prevention of chimical changes effected by light on the epidermis.

Increasing the magnitude of vegetables, without reference to their quality, is to be obtained by an increased supply of all the ingredients of food, distributed in such a body of well pulverized soil as the roots can reach to; of heat and moisture; of the partial exclusion of the direct rays of the sun, so as to moderate perspiration; and of wind, so as to prevent sudden desiccation [drying]. But experience alone can determine what plants are best suited for this, and to what extent the practice can be carried. Nature gives the hint in the occasional luxuriance of plants accidentally placed in favorite circumstances, and man adopts it, and improving on it, produces cabbages and turneps of half a cwt.; apples of one pound and a half; and cabbage roses of four inches in diameter; productions which may in some respects be considered diseased.

The preservation of vegetables for future use, is effected by destroying, or rendering dormant, the principle of life, and by warding off, as far as practicable, the progress of chimical decomposition. When vegetables or fruits are gathered for use or preservation, the air of the atmosphere which surrounds them is continually depriving them of carbon, and forming the carbonic acid gas. The water they contain, by its softening qualities, weakens the affinity of their elements; and heat produces the same effect by dilating their parts, and promoting the decomposing effect both of air and water. Hence, drying in the sun or in ovens, is one of the most obvious modes of preserving vegetables for use, as food, or for other purposes; but not for growth, if the drying process is carried so far as to destroy the principle of life in seeds, roots or sections of the shoots of ligneous (woody) plants. Potatoes, turneps and other esculent roots, may be preserved from autumn till the following summer, by drying them in the sun, and burying them in perfect dry soil, which shall be at the same time at a temperature but a few degrees above the freezing point. Corn (grain) may be preserved many years by first drying it thoroughly in the sun, and then burying it in dry cool pits, and closing these so as effectually to exclude the atmospheric air. In a short time the air within is changed to carbonic acid gas, in which no animal will live, and in which, without an addition of oxygen or atmospheric air, no plant or seed will vegetate. The corn is thus preserved from decomposition, from insects, vermin, and from vegetation, in a far more effectual manner than it can be in a granary. In this way the Romans preserved their corn in chambers hewn out of dry rock, the Moors in the sides of hills, the Chinese, at the present time, in deep pits, in dry soil, and the aboriginal natives of Africa, in earthen vessels hermetically sealed. The origin of these practices are all obvious imitations of what accidentally takes place in nature, from the withered grassy tussock to the hedgehog's winter store; and hence the origin of herb, seed, and root rooms and cellars, and packing plants and seeds for sending to a distance.

The whole of the arts of vegetable culture, is but a varied development of the above fundamental practices, all founded in nature, and for the most part rationally and satisfactorily explained on chimical and physiological principles. Hence the great necessity of the study of botany to the cultivator, not in the limited sense in which the term is often taken, as including mere nomenclature and classification, but in that extended signification in which we have here endeavored, proportionately to our limited space, to present the study of the vegetable kingdom.—*Enc. of Agr.*

Recipes in Domestic Affairs.

Baked Beefsteak Pudding.—Make a batter of milk, two eggs, and flour, or which is much better, of potatoes boiled and rubbed through a colander. Lay a little of the batter at the bottom of the dish, have the beef cut in thin slices and divided in pieces three inches long and well fried in butter, and seasoned to your taste; place them in the dish, and pour the remainder of the batter over them, and bake in an oven.

Padovies.—Shred rare done cold beef, with a little fat; season with pepper, salt, and if preferred, a little onion. Make a plain paste of flour, roll it thin, and cut in shape of an apple puff; fill it with the shred beef, pinch the edges and fry brown. The paste should be made with a small quantity of butter, eggs and milk.

Beef Cakes.—Make fine some beef that is rare done, with a little fat bacon; season with pepper and salt, and otherwise as preferred; mix well and make into small cakes three inches long, and half as wide and thick, and fry them a light brown, and serve with gravy.—*Northern Farmer.*

Dressing Meats.—"Wash all meats before you dress; if for boiling, the color will be better for soaking; if for roasting, dry it. Boiling in a well flavored cloth, will improve much the appearance. The pot should be skimmed the moment it boils, otherwise the meat will have a foul appearance.

"The boiler and all utensils should be kept delicately clean; they will otherwise communicate a bad flavor to the meat.

"Meat should be boiled slow, or it will be hard; weigh the joint, and allow a quarter of an hour to each pound, and about twenty minutes over."

If you have a greater quantity of cheeses in the house than is likely to be soon used, cover them carefully with paper, fastened on with flour paste, so as to exclude the air. In this way they may be kept from insects for years. They should be kept in a dry cool place.

Woolens should be washed in very hot suds and hot rinsed. Luke-warm water shrinks them.

Suet and lard keep better in tin than in earthern vessels.

Suet keeps good all the year round if chopped and packed down in a stone jar, covered with molasses.

See that the beef and pork are always under brine; and that the brine is sweet and clean.